We can be grateful that the discoverers of quantum theory didn't dub it "strange" physics and we can expect hopefully that when the properties of these new particles become as familiar to us as those of atomic nuclei that other new and initially strange worlds will have already made their first appearance.

Be that as it may this volume records the very considerable progress which has already been made toward obtaining an understanding of the properties and interactions of hyperons and K mesons. The emphasis is mostly on phenomenological aspects toward which the authors have themselves made notable contributions. Other tracts in this series present the theoretical point of view. How are the spin, the parity, the hypercharge, the isotopic spin, and so on, determined and, of course, what are their values? How are these particles made and how do they interact? How do they decay, particularly the K_0 and $\overline{K}_0$? The discussions of these matters is very clear but the level is quite sophisticated. It is then not a book for a beginner. However, it will present no difficulties for a physicist who has worked with reaction theory, and for him it provides an excellent introduction into the subnucleonic world.

High-Pressure Measurement. ASME Symp. Proc. (New York, Nov. 1962). A. A. Giardini and E. C. Lloyd, eds., 409 pp. Butterworths, Washington, D.C., 1963. $10.75.

Reviewed by Norman H. Nachtrieb, University of Chicago.

This volume comprises the proceedings of the Symposium on High Pressure Measurement, sponsored by the American Society of Mechanical Engineers in New York City in November, 1962. Twenty-four papers are presented, together with the comments and discussions which arose out of each. They reflect the over-all present state of the art of generating and measuring pressures in the 10 to 500 kilobar range. There is general agreement on a pressure scale based upon fixed transition points up to 59 kilobars (the lower transition point of barium), but much less consensus for the region above 100 kilobars. Apart from the hysteresis and inherent sluggishness associated with certain transformations (e.g., the alpha-gamma transition in iron at about 88 kilobars and 548°C), there are major problems in the mapping of the stress gradients that exist within the volume that is confined between anvils. As a consequence, many of the papers deal with practical aspects of calibrating various kinds of high pressure devices (Bridgman opposed anvil, tetrahedral, cube, and belt configurations) and with such variables of the investing medium as size, composition, geometry, and shear characteristics. The empirical approach necessarily dominates these studies at the present stage of development, although some progress is reported in the derivation of analytical expressions for the stress distribution in short cylinders compressed between rigid anvils when limiting simplifying assumptions are made.

This is an important addition to the growing literature of high pressure technology.

BOOKS RECEIVED

CHEMISTRY AND CHEMICAL PHYSICS

Digital Computer Programs for Physical Chemistry, Volume 1. By Paul A. D. de Maine and Robert D. Seawright. 423 pp. Macmillan, New York, 1963. $18.00.

Mathematical Methods in Chemical Engineering. By V. G. Jenson and G. V. Jeffreys. 556 pp. Academic, New York, 1963. $15.50.

Metallic Solid Solutions. Symp. Proc. (Orsay, July 1962). J. Friedel and A. Guiner, eds. 52 Chapters. Benjamin, New York, 1963. $19.75.

The Role of Diffusion in Catalysis. By Charles N. Satterfield and Thomas K. Sherwood. 118 pp. Addison-Wesley, Reading, Mass., 1963. $4.75.

The Chemistry of Imperfect Crystals. By F. A. Kröger. 1039 pp. North-Holland, Amsterdam, 1964. $30.80.

General Science: Chemistry. By C. W. Wood. 179 pp. (Pergamon, Oxford) Macmillan, New York, 1964. Paper $2.45.

Applications of Neutron Diffraction in Chemistry. By G. E. Bacon. 141 pp. (Pergamon, Oxford) Macmillan, New York, 1963. $6.50.

Electronic Spectra and Quantum Chemistry. By C. Sandorfy. 385 pp. Prentice-Hall, Englewood Cliffs, N. J., 1964. $14.95.

Azeotropy and Polyazeotropy. By Wojciech Swiętostawski. K. Ridgway, ed. 226 pp. (Pwn, Warsaw) (Pergamon, Oxford) Macmillan, New York, 1964. $10.00.

ELECTRICITY & MAGNETISM

Elektrizitätslehre. By Robert Wichard Pohl. (19th ed.) 342 pp. Springer-Verlag, Berlin, 1964. DM 29,80.

Electricité. Vol. 1, Electrostatique, Magnétostatique, Electromagnétisme, Phenomènes quasi-stationnaires. By M. Rouault. 246 pp. Masson, Paris, 1963. Paper 30 F.

Précis d'Electromagnétisme théorique. By Paul Poincelot. 456 pp. Dunod, Paris, 1963. 76 F.

Electricity and Magnetism for Electrical Engineers. By Alan T. Craven. 462 pp. (Pitman & Sons, London) Addison-Wesley, Reading, Mass., 1963. $7.75.

The Scattering of Electromagnetic Waves from Rough Surfaces. By Petr Beckmann and André Spizzichino. 503 pp. (Pergamon, Oxford) Macmillan, New York, 1963. $15.00.

ELECTROMAGNETIC WAVES & ELECTRONS

Propagation of Radio Waves at Frequencies Below 300 KC/S. W. T. Blackband, ed. 478 pp. (Pergamon, Oxford) Macmillan, New York, 1964. $20.00.

EXPERIMENTAL TECHNIQUES

1963 Transactions of the Tenth National Vacuum Symposium of The American Vacuum Society. (Boston, October, 1963). George H. Bancroft, ed. 510 pp. Macmillan, New York, 1964. $23.00.

GEOPHYSICS & EARTH SCIENCES

An Introduction to The Hydrodynamical Methods of Short Period Weather Forecasting. By I. A. Kibel'. Translation edited by R. Baker. 383 pp. (Pergamon, Oxford) Macmillan, New York, 1963. $14.50.